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SIPDIS

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TAGS: MTCRE ETTC KSCA MNUC PARM TSPA FR NE AS
SUBJECT: MISSILE TECHNOLOGY CONTROL REGIME (MTCR): U.S. PAPER ON DUAL USE MACHINE TOOL EXPORTS

Classified By: ISN/MTR Director Pam Durham.
Reasons: 1.4 (B), (D), (H).

¶1. (U) This is an action request. Please see paragraph 2.

¶2. (C) ACTION REQUEST: Department requests Embassy Paris provide the interagency cleared paper "U.S. Paper on Dual Use Machine Tool Exports" in paragraph 3 below to the French Missile Technology Control Regime (MTCR) Point of Contact(POC) for distribution to all Partners. Department also requests Embassy The Hague provide paper to the Licensing and Enforcement Experts Meeting (LEEM) Co-Chair Klaas Leenman, and Embassy Canberra provide paper to the Australian MTCR Plenary Chair for 2008/2009 and/or appropriate staff. Info addressees also may provide to host government officials as appropriate. In delivering paper, posts should indicate that the U.S. is sharing this paper as part of our preparation for the LEEM that will be held in conjunction with the MTCR Plenary in Canberra (November 3-7). END NOTE.

¶3. (U) BEGIN TEXT OF PAPER:

U.S. Paper on Dual Use Machine Tool Exports

Background

The export of machine tools has drawn increased attention from the international non-proliferation community due to their diverse set of applications in the production and manufacture of nuclear weapon components as well as components used in conventional weapons and missiles. MTCR controls focus on those machine tools that have an application in missile production such as spin-forming and flow-forming machines or filament winding machines. Other traditional machine tools such as those for cutting and grinding have an application in the production of certain missile components but are also associated with the production of nuclear weapons and conventional arms. Some of these general purpose machine tools, which also have multiple industrial uses, are controlled by the Wassenaar Arrangement (WA) and Nuclear Suppliers Group (NSG), while some low-end machines are not controlled at all.

Machine tools present a unique non-proliferation challenge in that they are extremely common items required for a variety of industrial applications completely unrelated to the manufacture of missile systems. The U.S. uses "catch-all" controls to effectively address this issue; the U.S. imposes "catch-all" export controls based on the end-use or end-user of an item or technology, instead of basing controls on the capabilities of the equipment or technology regardless of its intended use or user. Therefore, the U.S. "catch-all" controls can prohibit an export of a machine tool destined to a missile project of concern whether it is a WA or NSG

controlled item or even if it is not listed on any of the multilateral regime control lists.

Technical Overview

Machine tools are important for a number of manufacturing processes. There are a wide variety of machine tools available but the basic operational characteristics include (1) turning, (2) milling, (3) grinding, and (4) cutting, generally of metal in the fabrication of very precise parts and components.

Turning machines (lathes) are used in the fabrication of parts commonly used in nuclear and missile programs as well as commercial aircraft engine production. The parts being manufactured rotate during the machining process, while the cutter is usually held stationary. This produces mostly cylindrical parts.

Milling machines (or machining centers) are used to fabricate parts and components that are not cylindrical. Multi-axis milling machines can move simultaneously around the part being manufactured producing complex shapes. This includes the 5-axis milling machines that are commonly used to fabricate the most complex components for nuclear weapons, missiles, and some conventional weapons, as well as common components for the automotive industry and similar industrial applications.

Grinding machines remove material from flat and contoured surfaces using an abrasive wheel. These machines are used to machine very hard metals and where high-quality surface finishes are required. This category also includes jig grinders and cutter grinders that have a small precision grinding tool.

The above machine tools vary greatly in size, weight and accuracy. A large facility may not be necessary to utilize machine tools; facilities such as average size machine shops used by the automotive industry to fabricate parts would be sufficient to operate most machine tools.

Licensing and Controls

Machine tools that present a function in the manufacture of missiles systems, such as filament winding machines and spin- or flow-forming machines are controlled for missile technology (MT) reasons and require a license for export. In addition to the production and manufacture of conventional arms, nuclear weapons, and usefulness in missile programs, machines tools are also utilized in many segments of manufacturing throughout the world. However, many common machine tools are widely utilized in a plethora of industries; from the transportation industry to the manufacture of household appliances, but also may require a license for export.

This is illustrated by the array of licenses for machine tools. In the past 5 years, the Department of Commerce's Bureau of Industry and Security (BIS) has approved 831 licenses, rejected 6 and returned without action 92 license applications for machine tools that are controlled for national security or nuclear proliferation reasons but not for missile technology. Of the denials, 3 were rejected due to risk of diversion to an unreliable end user or risk of diversion to a proliferation program of concern. During FY 2007 BIS approved 193 licenses for "machine tools and any combination thereof, for removing (or cutting) metals, ceramics or composites." These particular machine tools are controlled by the NSG for nuclear proliferation (NP) reasons only. Of the 193 licenses, 94 were destined for Mexico for use in manufacturing diesel engines, air conditioning units, air wheel and brake components for aircraft, water heaters and automotive parts. One of the 193 applications was denied because of a direct and
significant contribution to power projection, air superiority and military capabilities and risk of diversion to programs

of concern, including missile programs.

The above denials occurred because in the United States machine tools that are controlled by either the WA or NSG can also be reviewed for missile proliferation reasons and even denied for missile proliferation reasons by utilizing the Enhanced Proliferation Control Initiative (EPCI) cross-over provision in section 742.5 of the Export Administration Regulations.

For example, if an item controlled for NP reasons will be used in a missile program of concern or by a missile end-user, then the license application must meet the licensing criteria of both the nuclear and missile regulations located in the Export Administration Regulations for approval. In addition, machine tools that are not controlled by any regime are still subject to the U.S. and MTCR catch-all provisions.

The U.S. also maintains catch-all controls for proliferation-based end-uses and end-users in order to stem the proliferation of Weapons of Mass Destruction WMD and their delivery systems. Licensing requirements are imposed on the export and re-export of any goods and technologies when the exporter "knows," has "reason to know," or "is informed" by the U.S. Government that the goods or technologies will be used in connection with proscribed WMD activities such as nuclear explosive activities, missile development activities, or chemical/biological weapons activities.

Conclusion:

Although machine tools have use in many industries, it is important to consider the potential missile-related uses of machine tools during the risk assessment in licensing process. Machine tools are precisely the kind of dual-use equipment that proliferators are eager to acquire. Partners must use their "catch-all" or other national regulatory approaches to have the ability to review exports of non-MTCR controlled machine tools to prevent them from being diverted to missile end-uses of concern. This is most critical for the more sophisticated machines controlled by the NSG and the WA, but also for those machines that fall outside of control parameters.

END TEXT OF PAPER.

¶4. (U) Please slug any reporting on this or other MTCR issues for ISN/MTR. A word version of this document will be posted at www.state.sgov.gov/demarche.
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